MISSION

Provide signal intercept and precision target location of threat communications and non-communications electronic emitters.

DESCRIPTION AND SPECIFICATIONS

The Guardrail/Common Sensor (GR/CS) is a corps-level, fixed-wing airborne signals intelligence (SIGINT) collection and target location system. The GR/CS system supports corps, division, and joint land force component commanders by detecting, identifying, exploiting, and precisely locating threat communications, radars, and other electronic emitters throughout the corps area of interest. It provides information dominance to the tactical commander. One GR/CS system is authorized per aerial exploitation battalion in the military intelligence brigade at each corps. A standard system consists of six to twelve RC-12 aircraft that fly operational missions in sets of two or three. Ground processing is conducted in the integrated processing facility (IPF). Interoperable data links provide microwave connectivity between the aircraft and the IPF. GR/CS systems provide near real-time SIGINT and targeting information to tactical commanders throughout the corps area via the Joint Tactical Terminal. Key features include:

* Integrated communications intelligence (COMINT) and electronic intelligence (ELINT) collection and reporting.
* Enhanced signal classification and recognition.
* Near-real-time direction finding.
* Precision emitter location.
* Advanced integrated aircraft cockpit.

Planned product improvements include greater mobility and deployability via smaller "mini-" IPFs and system upgrades to increase GR/CS capability to exploit a wider range of signals. The GR/CS shares technology with the Airborne Reconnaissance Low and other joint systems.

FOREIGN COUNTERPART

Numerous countries possess airborne electronic warfare systems, but none achieve the direction-finding accuracy of the Guardrail system.
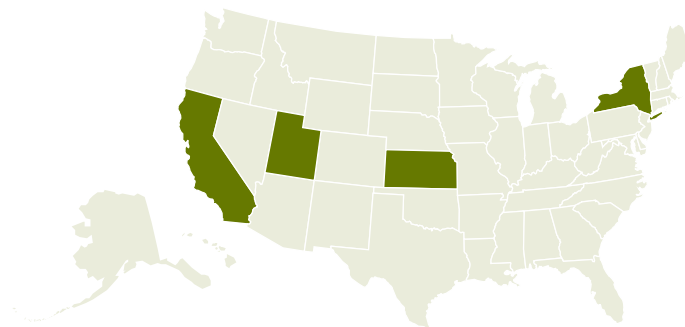
FOREIGN MILITARY SALES

None

PROGRAM STATUS

* Completed fabrication and functional testing of GR/CS Reporting systems.
* Integrated GR/CS Reporting shelters into GR/CS System 1 and 4.
* Completed initial GR/CS Reporting accreditation testing.
* Completed initial certification testing of Tactical Information Broadcast Service (TIBS) with AIA.
* **3QFY00** System 2 first unit equipped to Ft. Hood, TX.

PROJECTED ACTIVITIES

* **2QFY01** Train and field GR/CS to Systems 1 and 4; Field INTEROP to System 1.
* **3QFY01** Train and field GR/CS to System 3; Train and field TIBS to Systems 1 and 4; Train and field TIBS to System 3.
* **4QFY01** Field CHALS processor to System 1; System 2 materiel release.
* **1QFY02** Field TIBS to System 2; Field reporting to System 2.
* **1–4QFY02** Joint Tactical Terminal integration all Systems; DMS integration—all Systems.

PRIME CONTRACTORS

Raytheon (Wichita, KS); TRW (Sunnyvale, CA); L-3 Communications (Salt Lake City, UT); Lockheed Martin (Owego, NY)

* See appendix for list of subcontractors

Legacy Force	Sustain & Recapitalize →
Objective Force	S&T → R&D and Procurement →
Interim Force	Initial BCT → Interim →